

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION V

GH-293-7

OCT 12 1982

PS-8104-5

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DATE: 10/8/82

SUBJECT: Review Comments Chemical Recovery Systems, Inc.  
Hydrogeologic and Extent of Contamination Study

FROM: Gregg Kulma *Gregg Kulma*  
Remedial Response Section I

TO: Rod Bloese  
Ecology & Environment, Inc.

I have attached a copy of review comments on the subject report. In accordance with the peer review process, these comments must be addressed before this report can be released to the public. After you have had a chance to review these comments, it probably will be appropriate to have a discussion about how to address them. Changes will either have to be made in the report or justify reasons for not making changes.

Attachment

cc: Marian Neudel  
Mike Kosakowski, w/attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION V

DATE: SEP 29 1992

SUBJECT: Review Comments Chemical Recovery Systems, Incorporated  
Hydrogeologic and Extent of Contamination Study

FROM: Gregg Kulma, On-Scene Coordinator  
Remedial Response Section I

TO: Marian Neudel, General Attorney  
Water Enforcement

OCT 4 1992

I have reviewed the subject report and have the following comments:

1. Page 2, Paragraph 4 and page 4, Paragraph 1 - statements are made that groundwater is contaminated without any supporting evidence;
2. Page 5, Paragraph 3, Sentence 3 - sample 5 is below the water table. This is based on the drilling log for boring number B-8;
3. Page 18, Paragraph 1, Last sentence - I suggest that the phrase "by a considerable margin" be deleted since there are no calculations which establish what the flow rates are;
4. Page 25, Conclusion 6 - the word significant should be deleted for the same reasoning in comment 3.

I have also attached a copy of the review comments from Kevin Garrahan.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Peer Review of E & E Hydrogeological Study of Chemical  
Recovery Systems - Elyria, Ohio

FROM: Kevin G. Garrahan, Environmental Engineer  
Compliance Branch

TO: Michael Kosakowski, Acting Chief  
Compliance Branch

I have reviewed the E & E report and offer the following  
comments:

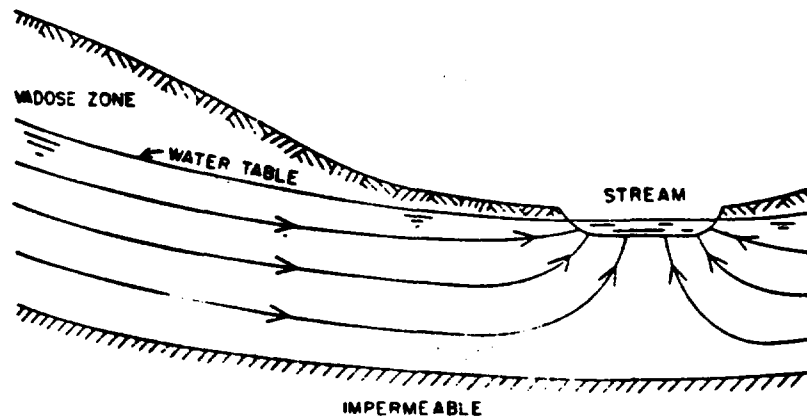
<u>Page</u>	<u>Comment</u>
2	The description of the "sewer line" beneath the site is confusing. Is it a bell and spigot storm drain to collect surface storm-water runoff from Locust Street? If so, call it such.
5	The maximum thickness of unconsolidated fill is stated to be 20 feet. On page 25, conclusion #2, the maximum thickness is stated as 28
16	The calculations of leachate generation is based on two simplifying assumptions: (1) 50% of precipitation infiltrates and leaches, (2) contaminated site area of 2 acres. The 50% proportion appears high. Hydrologic simulation using the Perrier & Gibson computer model estimates percolation at about 35-40 percent. The calculation also ignores the sub-surface lateral entry of precipitation from off-site areas.

↑  
precipitation

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Calculations for groundwater flow are based on an assigned permeability value and the river depth of eight feet. The river depth should not be used to calculate the cross-section area normal to the flow since the flow lines converge to the sides and bottom of the stream (see sketch below).



Since the characteristics of the underlying sandstone aquifer are not known, then perhaps it would be best to calculate the flow of groundwater through the layer of unconsolidated fill. In this case, the maximum thickness of fill (28 feet) would be used in Darcy's Equation. Computation of the equation would yield the maximum flow of contaminated groundwater through the site.

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Additional causes for the large difference between leachate generation and the flow of groundwater are: (1) the estimated proportion of infiltrating precipitation (50)% is too high, (2) seasonal variations of groundwater flow are not accounted for.

Plates

The plates should show the flow direction of the Black River. Legends should also be labelled.

c.c. Leon Acierto, Region V ✓